January 30, 2007

Reply to Office Action of:

October 30, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

MAT-7871US2

application.

**Listing of Claims:** 

1.-20. (Cancelled).

21. (Previously Presented) A loudspeaker, comprising:

a magnetic circuit;

a frame connected to said magnetic circuit; and

a loudspeaker diaphragm having an inner circumference which is connected to a

voice coil embedded in a magnetic gap of said magnetic circuit, and an outer

circumference being bonded to said frame;

wherein said loudspeaker diaphragm is manufactured in accordance with the steps

of:

heating a molded resin speaker diaphragm; and

activating the surface of said loudspeaker diaphragm by applying plasma while

keeping the temperature inside said reactive chamber below a heat deformation

temperature of said loudspeaker diaphragm.

22. (Previously Presented) A loudspeaker, comprising:

a magnetic circuit;

a frame connected to said magnetic circuit; and

a diaphragm for said loudspeaker having an inner circumference which is

connected to a voice coil embedded in a magnetic gap of said magnetic circuit, and an

outer circumference being bonded to said frame via an edge;

Page 2 of 10

Application No.:
Amendment Dated:
Reply to Office Action of:

10/613,456 January 30, 2007 October 30, 2006

wherein said diaphragm for said loudspeaker is manufactured in accordance with the steps of:

heating a molded resin loudspeaker diaphragm; and

activating the surface of said loudspeaker diaphragm by applying plasma while keeping the temperature inside said reactive chamber below a heat deformation temperature of said loudspeaker diaphragm.

- 23. (Previously Presented) A loudspeaker according to claim 21, wherein said loudspeaker diaphragm is further manufactured in accordance with one of injection molding and sheet forming.
- 24. (Previously Presented) A loudspeaker according to claim 21, wherein said reactive chamber is disposed with a meshed metal frame inside said reactive chamber and with an electrode outside said reactive chamber.
- 25. (New) A loudspeaker according to claim 21, wherein said loudspeaker diaphragm comprises polyethylene resin.
- 26. (New) A loudspeaker according to claim 25, wherein the wettability of the polyethylene resin immediately after treatment is 50 dyn/cm or above.
- 27. (New) A loudspeaker according to claim 25, wherein said polyethylene resin has a heat deformation temperature of 82°C.
- 28. (New) A loudspeaker according to claim 27, wherein said polyethylene resin has a bending strength of 18,400 kg/cm<sup>2</sup>.
- 29. (New) A loudspeaker according to claim 28, wherein the wettability of the polyethylene resin immediately after treatment is 50 dyn/cm or above.
- 30. (New) A loudspeaker according to claim 24, wherein said loudspeaker diaphragm comprises polyethylene resin.

MAT-7871US2

Application No.: Amendment Dated: Reply to Office Action of: 10/613,456 January 30, 2007 October 30, 2006

- 31. (New) A loudspeaker according to claim 24, wherein the wettability of the polyethylene resin immediately after treatment is 50 dyn/cm or above.
- 32. (New) A loudspeaker according to claim 31, wherein said polyethylene resin has a heat deformation temperature of 82°C.
- 33. (New) A loudspeaker according to claim 32, wherein said polyethylene resin has a bending strength of 18,400 kg/cm<sup>2</sup>.
- 34. (New) A loudspeaker according to claim 33, wherein the wettability of the polyethylene resin immediately after treatment is 50 dyn/cm or above.
- 35. (New) A loudspeaker according to claim 22, wherein said loudspeaker diaphragm comprises polyethylene resin.
- 36. (New) A loudspeaker according to claim 22, wherein the wettability of the polyethylene resin immediately after treatment is 50 dyn/cm or above.
- 37. (New) A loudspeaker according to claim 36, wherein said polyethylene resin has a heat deformation temperature of 82°C.
- 38. (New) A loudspeaker according to claim 37, wherein said polyethylene resin has a bending strength of 18,400 kg/cm<sup>2</sup>.
- 39. (New) A loudspeaker according to claim 38, wherein the wettability of the polyethylene resin immediately after treatment is 50 dyn/cm or above.